REMARKS

Claims 1 – 47 are pending in the application.

Claim Rejections – 35 USC 102

In this section of the official action, Claims 1 – 15, 40 – 41, and 43 – 47 were rejected under 35 USC 102(e)as being unpatentable over Gadh U.S. Patent 6,629,065. Favorable reconsideration of this rejection in view of the above amendments is respectfully requested since, as will be shown below, Gadh fails to disclose a positioning command language. Rather Gadh discloses drag and drop type cursor or mouse based positioning of the shapes. Thus Fig. 4 of Gadh shows selection of an object using a mouse or like device, dragging of the object and placing of the object on another object. No movement or positional commands are ever used in Gadh. Thus if in Gadh one wishes to show a lamp on top of a table one selects the lamp and drags it to the table top. By contrast in a system utilizing the present embodiments one selects the lamp, indicates the table as a related object and indicates "on" as the relationship. The table is predefined with an "on" relationship and an on docking position and so the system knows automatically where to place the lamp.

This difference between the present invention and Gadh is expressed in each of the independent claims as amended above. Thus claim 1 defines an internal co-ordinate system defined within individual objects which serves as the basis for positional commands relating to that object. Such an internal co-ordinate system being the basis for positional commands is neither shown nor suggested by Gadh.

Claim 14 defines the selection of a relationship between two objects and the use of a positioning command to move one of the objects with respect to the other.

Claim 40 is a method claim covering positioning using said positioning commands.

Claim 43 teaches a menu of available positioning commands. Thus a user can right click on an object and obtain all of the associated positioning commands. Gadh does not teach positioning commands and thus cannot have a menu of positioning commands as claimed in claim 43.

It is stressed that positioning commands are not taught by Gadh. Gadh does not disclose commands such as 'up', 'down', 'on', 'under', and the like. The Examiner points to Fig. 4 of Gadh, but Fig. 4 simply shows user interactions, not positioning commands. That is to say Fig.. 4 is not a screen shot of a menu of commands. Rather it is a conceptual figure of a user interacting with his mouse and the object at different stages, with the moves of the user being shown as captions. Contrary to the Examiner's assertion that Gadh does have such commands, it is respectfully pointed out that Gadh does not have docking positions, such as an "on table top" position. Without such docking positions, commands such as 'on' have no meaning since the virtual reality system does not know how to locate the second object on the first object. Thus even if Gadh had disclosed such commands, the invention of command based positioning would still not have been enabled. The truth is that Gadh does not even suggest docking positions since he teaches actual location of the one object on the other manually by the user via a mouse click or the like.

The remaining claims mentioned in this section of the Office Action are believed to be allowable as being dependent on an allowable main claim. No new matter is added by the present amendments.

Claim Rejections – 35 USC 103

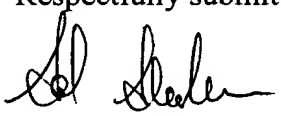
Claim 16 is rejected over Gadh in light of Chitambaran. Claim 16 defines a tooltip as a way of providing a user with intuitive access to the positioning commands available at a given three-dimensional object. In the corresponding embodiment, the user places the tooltip over the object, and the available positioning commands appear. The user selects the command of interest and the two objects automatically position themselves accordingly.

By contrast, in the Examiner's citations, Gadh discusses three-dimensional environments but fails to teach relationships between three-dimensional objects that allow for automatic positioning using commands. As explained, Gadh rather requires direct user positioning of one object over another, as explained above. Chitanbaran teaches tooltips but does not teach a three-dimensional virtual environment. The combination of the two documents fails to teach the material missing in Gadh, which is the use of positioning relationships and therefore the combination does not teach a tooltip that allows access to positioning commands for three dimensional objects in a three-dimensional environment.

In summary, neither tooltip nor automatic positioning relationships are taught in Gadh, and neither three dimensions nor positioning relationships are taught in Chitambaran, although the latter does teach a tooltip. Nevertheless the combination of tooltip, positioning relationships and three dimensions is not suggested by the combination since neither of them teaches positioning relationships. Claim 16 is therefore believed to be inventive in the light of the Examiner's citations and all claims dependent thereon are believed to be allowable as being dependent on an allowable main claim.

All of the matters raised by the Examiner have been dealt with and are believed to have been overcome. In view of the foregoing, it is respectfully submitted that all the claims now pending in the application are allowable over the cited reference. An early Notice of Allowance is therefore respectfully requested.

Respectfully submitted,



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Date: May 30, 2004